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# Assessment of Depression in the Latino Community

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# Assessment of Depression in the Latino Community

## **Abstract**

The author conducted a comprehensive critical review of literature related to the assessment of depression within the Latino community. The first section of this literature review focuses on the properties and appropriateness of the following assessment measures of depression used with the Latino population in English and Spanish: the Beck Depression Inventory (BDI), the BDI-II, and the Center for Epidemiological Studies Depression Scale (CES-D). The second part of the literature review focuses on reasons why culture should be more emphasized when assessing depression with the Latino population, such as: reliance on Westernized diagnostic criteria, cultural influences, protective factors, and potential misinterpretation of Spanish translated assessment measures. The third section examines the discrepancy in reported prevalence rates of depression with Latino individuals and focuses on three possible contributing factors to this discrepancy, including: a lack of assessment for culturally specific syndromes, Latino individuals' perceptions and attitudes about depression, and barriers to treatment and potential risk factors for depression. Finally, the literature review provides some future directions for research and suggestions for improving how depression is assessed with Latino individuals.

## **Degree Type**

Thesis

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ASSESSMENT OF DEPRESSION IN  
THE  
LATINO COMMUNITY  
  
A THESIS  
  
SUBMITTED TO THE FACULTY  
OF  
SCHOOL OF PROFESSIONAL PSYCHOLOGY  
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## ABSTRACT

The author conducted a comprehensive critical review of literature related to the assessment of depression within the Latino community. The first section of this literature review focuses on the properties and appropriateness of the following assessment measures of depression used with the Latino population in English and Spanish: the Beck Depression Inventory (BDI), the BDI-II, and the Center for Epidemiological Studies Depression Scale (CES-D). The second part of the literature review focuses on reasons why culture should be more emphasized when assessing depression with the Latino population, such as: reliance on Westernized diagnostic criteria, cultural influences, protective factors, and potential misinterpretation of Spanish translated assessment measures. The third section examines the discrepancy in reported prevalence rates of depression with Latino individuals and focuses on three possible contributing factors to this discrepancy, including: a lack of assessment for culturally specific syndromes, Latino individuals' perceptions and attitudes about depression, and barriers to treatment and potential risk factors for depression. Finally, the literature review provides some future directions for research and suggestions for improving how depression is assessed with Latino individuals.

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## Assessment of Depression in the Latino Community

Latino individuals comprise the fastest growing minority population (US Bureau of the Census 2003). Depression is one of the most common psychological concerns affecting 14.8 million American adults or about 6.7% of the U.S. population in a given year, according to the National Institute of Mental Health (Kessler, Chiu, Demler, & Walters, 2005). Depression is estimated to become one of the most debilitating diseases by 2020 (Murray & Lopez, 1996). Latino individuals are only half as likely as non-Latino Caucasian individuals to utilize mental health services and tend to drop out of treatment more quickly (La Roche, 2002). Even though Latino individuals are not as likely to receive mental health services, they are overrepresented in psychiatric hospitals (La Roche, 2002). There is a growing awareness of the inadequacy of treatment for depression with Latino individuals, especially in primary care settings (Cabassa, Lester, & Zayas, 2007), and most psychotherapeutic strategies have been designed for non-Latino Caucasian individuals, which often overlook cultural differences (La Roche, 2002). The increasing number of Latino individuals in the United States, high rates of depression, and the lack of treatments specific to Latino individuals compels us to reexamine current instruments for assessing depression used in order to better serve the Latino population.

This literature review will examine (a) the properties and appropriateness of assessment measures in English and Spanish used with Latino individuals, such as: the Beck Depression Inventory (BDI), the BDI-II, and the Center for Epidemiological Studies Depression Scale (CES-D) (b) reliance on Westernized diagnostic criteria, cultural influences, protective factors, and potential misinterpretation of Spanish

translated assessment measures as four reasons why culture should be emphasized when assessing depression with Latino individuals, (c) the discrepancy in reported prevalence rates of depression with Latino individuals due to the following possible contributing factors: lack of assessment for culturally specific syndromes, perceptions and attitudes of Latino individuals about depression, and barriers to treatment and potential risk factors for depression, and (d) suggestions for future research and improvements to assessing depression with Latino individuals. For the purposes of this literature review some definitions will be provided. First, Latino individuals will be used as an umbrella term that includes individuals with heritage from any Spanish-speaking country in North, Central, or South America, excluding European countries. Depression will be conceptualized from a Western European perspective outlined by the Diagnostic and Statistical Manual of Mental Disorders-IV-TR (American Psychiatric Association, 2000) diagnostic criteria, unless otherwise stated.

### CURRENT ASSESSMENT INSTRUMENTS

The first section of this literature review will focus on the properties and appropriateness of the English and Spanish versions of two widely used assessment measures of depression with Latino individuals: the BDI, including the revised BDI-II, and the CES-D. This section will examine the properties of the BDI, BDI-II, and CES-D by reviewing reliability, validity, and factor analyses of the measures. This section of the literature review will also examine the appropriateness of the measures by describing the strengths and weaknesses of each instrument reviewed.

### Beck Depression Inventory

The first part of the assessment section will focus on the features and suitability of the BDI, a self-report measure that is frequently used for assessing depression with Latino individuals (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The scale consists of 21 items with three response choices, reflecting the participants' reported experience over the past week. Scores of 16 or higher are indicative of moderate depression, whereas scores above 24 are indicative of severe depression (Azocar, Arean, Miranda, & Munoz, 2001). The original measure was created by Beck and his colleagues with the purpose of being able to quantify the level of depression in adult psychiatric patients. Beck et al. administered the instrument to a random sample of 226 psychiatric patients. Beck and colleagues replicated the procedure with another sample of 183 patients, and independent ratings were made by different psychiatrists to assure the measure was indeed assessing their conceptualization of depression. They found that reliability was high based on acceptable internal consistency and stability. They also found that consensus of the psychiatrists' independent ratings indicated a high level of validity. The measure was able to differentiate between degrees of depression and distinguish changes in levels of depression over an interval of time, a foundational step in the ability to quantify psychological constructs. The BDI has been shown to be reliable and valid in numerous studies (Beck et al., 1961; Gary & Yarandi, 2004). For the purposes of this literature review the Spanish-translated version of the BDI will be examined (Azocar et al., 2001).

Azocar, Arean, Miranda, & Munoz (2001) conducted a study to examine the use of a translated version of the BDI as an equivalent measure in a population of Spanish-speaking medical patients. The authors assessed the equivalence of measures and

examined whether items were biased in the translated version. They also compared the functionality of each item across Spanish-speaking Latino individuals and English-speaking U.S. national individuals. The authors utilized the Mantel-Haenszel Approach for Ordered Response Categories to determine Differential Item Functioning (DIF). DIF is defined as the unexpected difference in response to a test item between two populations while controlling for a specific attribute, in this case depression. The authors assigned the English-speaking sample as the reference group and the Spanish-speaking sample as the focal group, with language as the independent variable. The groups were further stratified into depressed and non-depressed using BDI scores. Afterwards, an analysis of each item was conducted to determine how likely members from both groups were to endorse a response category for each item.

Azocar and colleague's (2001) results indicated that four BDI items were biased for the Spanish-speaking sample. Specifically, items reflecting punishment were more likely to be endorsed by Latino individuals. They hypothesized that punishment may be more salient because many Latino individuals are strongly influenced by Catholicism and therefore may believe the reason negative events occur is because they are being punished by God. Tearfulness and appearance were also more likely to be supported by Spanish-speakers regardless of their reported level of depression. The authors believed the endorsement of tearfulness may have occurred because many Latino cultures have practices and symbols that portray crying as a more acceptable response to suffering. They suspected that negative self-image is a reflection of the under representation of Latino individuals in the media and is influenced by the cultural belief that many Latino individuals feel more unattractive as they age. Finally, Latino individuals were less likely

to indicate an inability to work regardless of their reported depression level. The authors stated that Latino individuals place an importance in their ability to work due to a strong work ethic and higher rates of poverty that force many Latino individuals to work menial jobs in order to support their families. These four culturally biased items illustrated how cultural differences may alter the responses or expressions of items meant to reflect depressive symptomatology. Azocar and colleagues highlighted the importance of caution when an item is discarded or modified because the removal may have indicated certain culturally specific attitudes, behaviors or beliefs as symptomatic of depression. The results explained that the Spanish and the English versions of the BDI were not equivalent because of these four culturally biased items. Although, the authors wrote that the BDI was an adequate measure of depressive symptomatology, they urged test administrators to use caution when interpreting scores and to gather more information before making a diagnosis. In conclusion, Latino individuals were more likely to endorse specific items, which have highlighted a possible differing conceptualization of depression than the mainstream Westernized conceptualization.

Reliability and validity are very important to consider when utilizing a particular assessment measure. Bernall, Bonilla, and Santiago (1995) examined the internal consistency and construct validity of the Spanish version of the BDI using a clinical sample from an outpatient clinic at the University of Puerto Rico. The authors reported an alpha coefficient of .89, which represents a high level of internal consistency. The authors found a similar factor structure as described in the original study by Beck and colleagues (1961). Bernall and colleagues (1995) concluded that the Spanish version of the BDI is sufficiently reliable and valid.

Azocar, Arean, Miranda, & Munoz (2001) conducted a principle-component analysis and found two factors for the BDI, a somatic factor and an affective factor. The authors replicated the two factors using varimax rotation in the two language samples. The coefficient alpha for the entire scale was .97, with the affective subscale having a .97 alpha and the somatic subscale having a .93 alpha. The authors did not find a significant difference of the mean scores on the BDI between the English-speaking group and the Spanish-speaking group. The authors found a high level of internal consistency, which is consistent with research conducted by Bernall and colleagues (1995).

A strength of the BDI is that it has been researched extensively and has been shown to be both reliable and valid (Bernall et al., 1995). It has been translated into many different languages and has been utilized in many countries (Azocar et al., 2001; Bernall et al.). According to Azocar and colleagues, biased items discovered on the Spanish version represent an important weakness of the BDI. Latino participants placed a different level of importance on certain items, suggesting the measure might be assessing two different understandings of depression and that the BDI lacks an emphasis on the impact of culture.

### Beck Depression Inventory-II

This section will look at the properties and the utility of the BDI-II, an updated version of the BDI, when assessing depression with Latino individuals (Wiebe & Penley, 2005). The BDI-II was created with the intent to increase content validity and to more closely align with current diagnostic criteria of the DSM-IV-TR. Wiebe and Penley conducted a study comparing the psychometric properties of the BDI-II in English and Spanish among a group of 895 bilingual college students. The BDI-II was administered

twice within a one-week interval, either in the same language on both occasions or in a different language on each occasion. When comparing the reliability of the BDI-II in English and Spanish, Wiebe and Penley found similar and strong reliability for the 21 items of the BDI-II in both languages. The English version had a correlation alpha of .89, and the Spanish version had a correlation alpha of .91. Test-retest reliability was acceptable in both languages among participants who completed the assessment both initially and during a one-week follow-up.

Wiebe and Penley (2005) evaluated the factorial validity in both Spanish and English versions of the BDI-II by using Confirmatory Factorial Analyses (CFAs). The CFAs were used to evaluate the somatic and affective, two factor model originally derived by Beck and colleagues (1961). Wiebe and Penley (2005) found that data from both languages represented an appropriate fit to Beck's two-factor model, and the fit indices were similar across languages. They tested model invariance by simultaneously applying the same model to both the English and Spanish data with factor loadings constrained to equality across samples. The constraints resulted in no significant change in model fit, suggesting model invariability across groups. Unlike the Azocar et al. (2001) study that found differences when comparing the English and Spanish versions of the BDI-II, Wiebe and Penley's (2005) results found the two versions of the BDI-II to be equivalent. However, it is important to consider that the authors utilized a group of bilingual college students without assessing acculturation levels or monolingual interpretations of the translated version. Overall, the authors concluded that both versions of the BDI-II had high reliability and validity as well as the original two-factor structure found by Beck and colleagues. The authors concluded that there were no differences

between factor structures across the Spanish and English versions of the BDI-II, unlike Azocar and colleagues (2001), who found nonequivalence between the Spanish and English versions of the BDI.

Other researchers have found nonequivalence and different factor structures when examining the English version of the BDI and the BDI-II (Vanhuele, Desmet, Groenvynck, Rosseel, & Fontaine, 2008; Ward, 2006). Ward found that the item factor structure of the BDI-II differs from the earlier version. Vanhuele, Desmet, Groenvynck, Rosseel, and Fontaine conducted a study utilizing CFA on a sample of 404 clinical and 695 nonclinical adults to assess whether or not the somatic-affective and cognitive factors found by Beck and colleagues (1961) were an acceptable fit. Vanhuele and colleagues' goal was to find a factor model that fit their data after examining the multitude of previous factor models present in the literature. Vanhuele and colleagues conducted Confirmatory Factor Analysis Fit Indices on both a clinical and nonclinical sample to assess for different factor models including: a one-factor BDI-II model, 6 two-factor BDI-II models, 4 three-factor BDI-II models, and a shortened two-factor and three-factor factor model. Vanhuele and colleagues concluded that none of the models had an adequate fit in either sample. Therefore, the authors decided to create a shortened version that was a more appropriate fit in both samples and added unidimensional subscales as well. Vanhuele and colleagues subsequently created two shortened versions by deleting certain items. The shortened versions do not encompass all of the DSM-IV criteria for major depression. However, the subscales allow for a straightforward assessment of somatic, affective, or cognitive elements of depression.



One of the strengths of the BDI-II, like the BDI, is that it has been shown to be both reliable and valid (Gary & Yarandi, 2004; Wiebe & Penley, 2005). Another major strength of the newer version is that it appears to be more aligned with the current version of the DSM and has more contemporary views of depression (Wiebe & Penley, 2005). However, researchers using the BDI-II have found many different factor structures within the English version alone (Ward, 2006; Vanheule et al., 2008). Therefore, because of cultural variables and the discrepancy between the appropriate numbers of factors found in the English version, one can assume there may be many different factorial variations with translated versions as well.

#### Center for Epidemiological Studies of Depression Scale

The final part of the assessment section will review the features and appropriateness of the CES-D, an instrument that measures depressive symptomatology in the general population, when assessing depression with Latino individuals (Radloff, 1977). The original version of the CES-D was developed by Radloff to measure depression with an emphasis on the affective component of depressed mood. When comparing a participant group with the general population sample Radloff found higher item means, higher inter-item correlations, and very high internal consistency. The CES-D was designed to measure current levels of depressive symptomatology and is assumed to vary over time. This has resulted in some criticism of the instrument. For example, the data collected by Radloff concerning the test-retest time interval were confounded because there was no consistent time interval, and there were multiple methods of collection. Radloff found that participants not experiencing significant life events at either collection time had the highest test-retest reliability, followed by those where a

single event occurred at one of the collection times, and participants with events during both collection times came next.

The CES-D was not designed as a diagnostic tool, but was based on symptoms of depression as defined by the DSM-III (Radloff, 1977). Radloff demonstrated that the CES-D was able to discriminate well between psychiatric inpatients and the general population. Radloff used the CES-D to discriminate the severity of depression between inpatient groups at a moderate level. The CES-D had adequate discriminate validity when comparing it to other scales measuring depression as well.

To assess generalizability across subgroups, Radloff (1977) repeated analyses across different subsets of the population, including three age groups: younger than 25, between the ages 25 and 65, and older than 65. Radloff differentiated between male and female, African American individuals and Caucasian individuals, and between three levels of education: less than high school, high school, and more than high school. Radloff found a coefficient alpha of .80 or higher in all subgroups, moderate test-retest correlations, and that no particular group seemed to have notably high scores overall. Radloff noted that the groups did not differ from each other or the general population in factor structure.

Radloff (1977) found four factors that were consistent across the three groups of participants. The first factor was depressed affect, which is characterized by words such as blues, depressed, lonely, cry, and sad. The second factor was positive affect, described by words such as good, hopeful, happy, and enjoy. The third factor was somatic and included keywords such as bothered, appetite, effort, sleep, and get going. The final factor was interpersonal and was noted when words like unfriendly and dislike were

mentioned. In all three groups, the depressed affect factor shared the highest amount of variance (16%), and the interpersonal factor shared the lowest amount of variance (8%). Radloff concluded that the CES-D had both high reliability and validity and was suitable for use with English-speaking populations across many different age and economic ranges, without mentioning Latino individuals. Radloff warned about using this scale as a clinical diagnostic tool and cautioned using this scale with bilingual participants. Instead, he recommended using it only with monolingual African American and Caucasian adults.

To examine the factor structure of the CES-D with Latino individuals, Guarancia, Angel, and Worobey (1989) used the Hispanic Health and Nutrition Examination Survey (Hispanic HANES). Guarancia and colleagues examined the results of the Hispanic HANES across ethnic groups and noted social and cultural differences between Latino individuals and other ethnic groups in the expression of depressive symptoms and depressive affect. Other differences were illustrated between Mexican-American, Puerto Rican-American, and Cuban-American individuals among the expression of depression. Some possible explanations for the inter-group differences were believed by Guarancia and colleagues to be influenced by the gender of the respondent and the language that was being used during the interview.

Guarancia and colleagues (1989) highlighted two important issues in cross-cultural psychiatry that need to be addressed. First, studies need to focus on how the patterns of depressive symptoms differ across cultural groups, not how they are universally represented. Second, the issue of affective versus somatic representations of symptoms of depression also needs to be further explored. It is possible that people from

less developed countries may have less differentiated language for expressing depressive affect and other emotions.

One aspect that is important to consider when evaluating assessment measures is whether or not they were validated using non-equivalent groups (Crockett, Randall, Shen, Russell, & Driscoll, 2005). Therefore, if a measure is adapted from a Caucasian group, it may not be accurately identifying differences in the conceptualization of depression.

Also, in defining or measuring this construct, it is important to be aware of the heterogeneous nature of the Latino population and the multiple cultures, countries, and values inherent in this population. Unfortunately, many assessment measures are tested on a pooled group of Latino participants that encompass many different countries.

Crockett and colleagues conducted a study to measure the equivalence of the CES-D on three groups including, Cuban-American, Puerto Rican-American, and Mexican-American adolescents. The authors found that Cuban and Puerto Rican-American youths did not support the original 4-factor structure of the CES-D. This finding could be a distinct cultural difference that needs to be further researched.

Another important area to consider when evaluating translated versions of an assessment measure is to examine the differences in response by participants across measures (Garcia & Marks, 1988). Garcia and Marks (1988) compared responses on the CES-D between a group of Caucasian adults and Mexican American adults. They found certain types of responses such as hopelessness about the future, lack of enjoyment out of life, and depreciation of self in relationships to be more prevalent among Mexican American participants than Caucasian participants. One can hypothesize that those response types may in fact be very relevant aspects of psychological functioning for

Mexican American individuals. After factor analysis, a specific factor for the Mexican American group arose encompassing items that dealt with loneliness, sadness, and crying as opposed to the Caucasian group.

The CES-D has been shown to be both a reliable and a valid measure of depressive symptomatology, and has been used and translated into many different languages (Radloff, 1977; Garcia & Marks, 1988). However, there are some concerns with the factors found across diverse populations. Specific differences found between different subpopulations of the Latino community are of particular interest. Radloff cautioned using the CES-D with bilingual participants because of complex wording and colloquial phrases that may be confusing to some bilingual individuals. Grzywacz, Hovey, Seligman, Arcury, and Quandt (2006) conducted a study to examine whether different 10-item short versions of the CES-D were appropriate to use with the Mexican immigrant population in the United States. Grzywacz and colleagues examined three different short versions of the CES-D that were utilized in seven different studies in the past eight years prior to publication of the study. The authors noted that the short versions have been found to be reliable and valid, but have never been assessed within a Mexican immigrant population. The short forms had acceptable reliability, and 75% of the variance from the full CES-D was accounted for by the short forms. The authors found the short versions to be just as likely to identify potential cases of depression as the full version of the CES-D. The results suggest that these short forms of the CES-D are adequate assessments that can be utilized with a Mexican immigrant population.

Some strengths of the CES-D are the measure is both reliable and valid and has been researched with diverse populations in many settings (Radloff, 1977; Guarancia et

al., 1989). Radloff (1997) found four distinct factors: depressed affect, positive affect, somatic and interpersonal, which have been replicated numerous times. Grzywacz and colleagues (2006) demonstrated the utility of using a shorter version of the CES-D with Latino individuals. One of the weaknesses of the CES-D is a lack of emphasis on the cultural and social uniqueness of the Latino culture and its expression of depression. Another weakness is the issue of non-equivalent groups and different factor loadings between Latino individuals and non-Latino Caucasian individuals. Finally, there may be differences among sub-groups of the Latino population.

### CULTURE AND DEPRESSION

Culture should be addressed when assessing for depression with Latino individuals for four reasons. First, it should be incorporated because the Western view of clinical depression as defined by the DSM-IV-TR does not account for beliefs present in many interdependent cultures, such as greater tolerance for negative emotion, emphasis on interpersonal concerns as opposed to internal problems, and viewing the mind and body as one entity. Second, levels of acculturation and perceived gender roles are cultural influences that may influence rates of depression in Latino individuals. Third, protective factors such as interpersonal functioning, *familismo*, and the *Hispanic paradox* may guard against depression in Latino individuals, which will be further examined and explored at a later section of the review. Finally, translated versions of assessment measures may be vulnerable to misinterpretation when cultural considerations are not made.

## DSM-IV-TR

The first reason culture needs more emphasis is that the DSM-IV-TR definition of depression may not account for many non-Western beliefs. This section will highlight the narrow focus a Westernized definition of depression can have when using it with individuals from non-Western cultures. The definition that is most commonly utilized in the United States to conceptualize depression is taken from the DSM-IV-TR (American Psychiatric Association, 2000), as follows:

having experienced at least one Major Depressive Episode that is characterized by five (or more) of the following symptoms that have been present during the same week period and represent a change from previous functioning; at least one of the symptoms is either depressed mood or loss of interest or pleasure. The symptoms are: depressed mood most of the day, nearly every day; markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day; significant weight loss when not dieting or weight gain; insomnia or hypersomnia nearly every day; psychomotor agitation or retardation nearly every day; fatigue or loss of energy nearly every day; feelings of worthlessness or excessive or inappropriate guilt nearly every day; diminished ability to think or concentrate, or indecisiveness, nearly every day; recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide (p.356 ).

The current Western view of clinical depression is based on the DSM-IV-TR, and may not account for Latino individuals that share non-Western views, such as greater tolerance for negative emotion, symptoms being attributed to interpersonal concerns as opposed to internal problems, and viewing the mind and body as one entity (Tsai & Chentsova-Dutton, 2002). The definition of depression outlined in the DSM-IV-TR reflects Western cultural assumptions about the nature of health and illness. Other cultures may possess a greater tolerance for negative emotion than the emphasized positive emotion and feeling good about the self that is considered normal in Western culture. A higher tolerance for negative emotion is much more common among

individuals in more interdependent cultures such as China, Japan, and many Latin American countries. Negative emotions towards the individual in more interdependent cultures may be more acceptable in order to maintain harmony in the family. Many non-Western cultures do not view the mind as separate from the body, unlike the more biological and medical views of depression held by Western cultures. In Western culture depressive symptoms are attributed to internal disturbances because of congruent views of individuals as self-contained and autonomous. Tsai and Chentsova-Dutton (2002) described the way many non-Western cultures have conceptualized emotional problems as related to interpersonal issues because of views of individuals in context to connections with others. Non-Western cultures have also placed more emphasis on symptoms of social withdrawal being associated with depression.

### Cultural Influences

The second reason that culture needs to be more emphasized is the potential impact that cultural influences, such as levels of acculturation and perceived gender roles, may have on rates of depression with Latino individuals. This section will examine the impact of acculturation and perceived gender roles on the depression levels of Latino individuals.

#### *Acculturation*

Acculturation is the first cultural influence that needs to be more incorporated in assessment of depression with Latino individuals. Acculturation, or the level of adaptation to mainstream American cultural values and beliefs, has been reported to have an effect on reported depression levels of Latino individuals (Lewis-Fernandez, Das, Alfonso, Weissman, & Olfson, 2005). Lewis-Fernandez and colleagues conducted a



study examining rates of mental disorders among 1456 patients in a primary care setting in Anaheim, California, which had 2 out of every 3 patients being Latino. Among the Latino individuals, Lewis-Fernandez and colleagues found a relationship between nativity and risk of depression. The authors found overall lower rates of depression and overall better physical functioning in Latino immigrants than US born Latino individuals. These findings suggest that acculturation level may be a risk factor for depression. Similar findings were noted in a study of Cuban-American individuals. The lifetime rate of depression in US-born Cuban-American individuals was significantly higher than for Cuban American individuals born in Cuba (Narrow, Rae, Moscicki, Locke, & Regier, 1990; Ortega, Rosenheck, Alegria, & Desai, 2000). These findings suggest a link between acculturation level and the prevalence rate of depression with Latino individuals.

### *Gender*

Gender is the second cultural influence that needs to be more emphasized when assessing depression with Latino individuals. Cespedes and Huey (2008) conducted a study to examine the relationship between cultural discrepancy and depression rates in Latino youth. The authors describe cultural discrepancy as the difference between perceived acculturation and gender roles among adolescents and their parents. The study consisted of 130 participants from the ninth through the twelfth grade who were enrolled in a local high school in Los Angeles, California. The participants were given self-report questionnaires to complete for both their perceived acculturation and gender role values and the values of their parents. The participants were also given the Reynolds Adolescent Depression Scale-2 and the Columbia Suicide Screen to assess their reported levels of depression and suicidality.

Cespedes and Huey (2008) concluded that perceived acculturation discrepancy was not correlated between parents and youth on family dysfunction or depression. However, they found a significant correlation between gender role discrepancy and depression, slightly more prevalent among adolescent females. These findings suggest a possible link between divergent gender role beliefs between parents and adolescents of immigrant families and depression for Latino youth.

A gender role belief that was culturally specific in this study was *machismo* (i.e., prominently exhibited or prominent masculinity), and the authors measured it with the Attitudes Toward Women Scale and the Machismo Scale. The authors found a discrepancy between the adolescences' and parents' reported levels of machismo, which was correlated with increased family conflict. Gender role beliefs in the Latino culture may be overlooked when assessing for depression levels (Cespedes & Huey, 2008). This study highlights how there may exist a potential disconnect between the values placed on genders between more acculturated Latino youth and their less acculturated parents. The impact of acculturation and its effect on perceived gender roles is a reason for better incorporating culture into psychological assessments of depression.

#### Protective Factors

The third reason there should be a greater emphasis placed on culture when assessing for depression with Latinos is Latino culture values may act as proactive factors against depression. Different cultural factors have been shown to protect against depression in Latino individuals, which highlights the need to better account for the effect of culture when assessing for depression (Plant & Sachs-Ericson, 2004; Menselson, Rehkopf, & Kubzansky, 2008; Palloni & Morenoff, 2001). The following have been

described as potential cultural protective factors: interpersonal functioning, *familismo* or strong adherence to the family and the *Hispanic paradox*, or positive health outcomes in spite of elevated environmental risk.

### *Interpersonal Functioning*

Interpersonal functioning is the first protective factor that should be more addressed when assessing for depression with Latino individuals. Interpersonal functioning, or maintaining strong social support networks, has been shown to act as a protective factor against depression (Plant and Sachs-Ericson, 2004). Plant and Sachs-Ericson conducted a study measuring racial and ethnic differences in depression and how it relates to levels of social support and the ability to meet basic needs. The authors described the inability to meet basic needs as a possible reason for the tendency for minority individuals to have higher rates of depression. However, higher levels of interpersonal functioning were shown by the authors to be a protective factor against depression. Having compared interpersonal functioning across ethnic groups, Plant and Sachs-Ericson found higher levels of interpersonal functioning among Latino and African-American individuals when compared to non-Latino Caucasian individuals. Interpersonal functioning has been shown to protect against depressive symptoms for Latino individuals more than for non-Latino Caucasian individuals. A better understanding of how Latino culture fosters interpersonal functioning would be beneficial.

### *Familismo*

Familismo is the second protective factor that needs more emphasis when conducting assessments of depression with Latino individuals. Another protective factor

for depression is *familismo*, which may promote social support, even when increased environmental risk is present (Menselson, Rehkopf, & Kubzansky, 2008). Gil-Rivas, Greenberger, Chen, Montero, and Lopez-Lena (2003) conducted a study to further understand the contribution of individual and family variables to depressive symptoms among Mexican youth. Gil-Rivas and colleagues noted that Mexican individuals adhere to more traditional family values and generally defined themselves in reference to family members. Individual variables that were a focus of this study were gender, negative life events, and ruminative coping style. Family variables explored were parental warmth and acceptance, parental-adolescent conflict, and parental monitoring. Gil-Rivas and colleagues concluded that higher levels of parental warmth and acceptance were associated with lower levels of depressive symptomatology, and that parental conflicts were associated with higher levels of depressed mood. Parental warmth had offset the risk of ruminative style, and this has important implications for understanding the relationship between the Latino culture and depressive symptomatology. *Familismo*, and more specifically parental warmth, may act as a protective factor against many potential risks that are associated with depression. More research needs to be done to better understand this relationship.

### *Hispanic Paradox*

*Hispanic paradox* is the final protective factor that needs to be more incorporated when assessing depression with Latino individuals. Negative health outcomes are a risk factor for depression, but certain cultural aspects may act as protective factors against health concerns for Latino individuals (Palloni & Morenoff, 2001; Page, 2007). Palloni and Morenoff (2001) explained how Latino individuals appear to be more resilient,

despite environmental challenges, to some negative health outcomes, such as low birth rate and infant mortality when compared to non-Latino Caucasians. This protective factor has been termed as the *Hispanic paradox*. Page conducted a study to examine the acculturation and ethnic differences among Latino, African-American, and Caucasian woman as related to their health behaviors and attitudes during pregnancy. Page found that less acculturated Latino women had the lowest rates of substance abuse and reported the least risky sexual behavior when compared to Caucasian and African-American women. In regards to parenthood, maternal, and gender role attitudes, Spanish-speaking Latino women held more traditional values when compared to African-American and Caucasian women.

Traditional Latino cultures' value of childbearing and the role of motherhood may serve as protective factors for pregnancy outcomes. The Hispanic paradox has illustrated the impact culture and cultural values can have on negative health outcomes (Palloni & Morenoff, 2001; Page, 2007). The *Hispanic paradox* is another reason why accounting for culture with assessments with Latino individuals is important.

#### Misinterpretation

The final reason that culture needs to be emphasized when utilizing translated versions of assessment measures is the potential for misinterpretation. Caucasian middle-class professionals have created most of the current theories and explanations of depression and they have focused on their own experience in a post-modern, urban, Western society (Falicov, 2003). However, these theories are inevitably transferred to effected groups without these theories being culturally translated. One common way cultural translation of depression is approached is by using the epidemiological,

biomedical approach (Tsai & Chentsova-Dutton, 2002). This approach stipulates that as long as the presenting problems are similar, depression is the same regardless of the socio-cultural context. Neglecting to account for the effect culture has on an individual's experience of depression may limit the accuracy of measurement and increase the possibility of misdiagnosis

In summary, there are several reasons why culture should be more emphasized in assessments with Latino populations. First, the DSM-IV-TR definition of depression may not adequately account for non-Western beliefs. Second, levels of acculturation and perceived gender roles may affect rates of depression in Latino individuals. Third, Latino cultural values might act as protective factors against depression. Finally, translated versions of assessments are potentially vulnerable to misinterpretation when culture is not incorporated.

### CONTRIBUTING FACTORS

The final section of this literature review will examine the variation of reported prevalence rates of depression for Latino individuals prior to examining possible contributing factors to the discrepancy. Three potential contributing factors to the variation are explored: a) lack of assessment for culturally specific syndromes for Latino individuals, b) different cultural attitudes and perceptions of depression, and c) barriers to treatment and potential risk factors for depression.

#### Prevalence Rates

Explored in this section are the prevalence rates of depression among Latino communities. Currently, there is not extensive research on topic, and there is contradictory information reported by researchers about the prevalence rates of

depression within Latino populations when compared with non-Latino Caucasian populations (Sclar, Robinson, & Skaer, 2008; Menelson et al., 2008; Roberts, 1981). Sclar, Robinson, and Skaer conducted a study in order to discern the differences of rates of depression between races based on documented visits to a medical doctor that resulted in a diagnosis of depression and whether antidepressant medication was utilized. The study examined data taken from the National Ambulatory Medical Care Survey from 1992-1997 and 2003-2004. The authors reported a significant increase in the number of diagnoses given for all races between the years examined and observed a dramatic increase in the amount designated for Caucasian participants when compared with Latino and African-American participants. The reported difference in depression rates begs the question of why Caucasian participants would be more likely to be diagnosed with depression and prescribed antidepressants than Latino or African-American participants.

Breslau, Javaras, Blacker, Murphy, and Normand (2008) conducted a study to determine the potential reasons for ethnic differences in depression. The authors hypothesized that minorities may be less likely to endorse questions from a survey about depression, even though they have a similar level of depression. To test this hypothesis, Breslau and colleagues used a Composite International Diagnostic Interview (CIDI), which is a fully structured diagnostic interview schedule, with a sample of African American, Caucasian, and Latino participants. Breslau and colleagues were interested in identifying how Differential Item Functioning (DIF) could explain the differences in responses between groups. They found two conflicting conclusions. First, some aspects of depression assessment differed significantly between ethnic groups. Second, after correcting for these differences in the way people responded, it did not change the

epidemiological conclusions. They found specific differences when assessing symptoms of self-reproach, suicidality, lack of energy, weight gain, and sleep disturbances. These results indicate that there may be some differences between how depression is expressed in different minority groups and also suggest that being a minority is not necessarily linked to higher rates of depression.

When they examined the prevalence of psychiatric disorders across different subpopulations of the Latino community, Alegria, Mulvaney-Day, Torres, Polo, Cao, and Canino (2007) found that Puerto Ricans had the highest prevalence rate of depression. They also found increased rates of depression among US-born, English-language proficient and third generation Latino individuals. The depression rates were similar between African American and Latino individuals. However, these rates were less than half of the rate observed for Caucasian individuals. This study indicated the risk of recent depressive disorders found among Latino individuals with high English-language proficiency and those whose parents were born in the United States. The authors demonstrated the complexity of understanding psychiatric disorders among the heterogeneous Latino community.

The prevalence rates for depression across ethnicities reveal that Latino individuals report lower levels of depression than non-Latino Caucasian individuals, that being a minority may not be linked to higher risk for depression, and that Latino individuals who were born in the United States have higher rates of reported depression than foreign born Latino individuals (Sclaret al., 2008; Breslau et al., 2008; Alegria et al., 2007). The following section will outline some possible contributing factors to the



reasons researchers have come to different conclusions about prevalence rates of depression for Latino individuals.

### Three Factors

The three potentially contributing factors to the inconsistency in reported prevalence rates for depression among Latino populations are: not accounting for the impact of culturally bound syndromes, perceptions and attitudes about depression, and existing barriers and risk factors.

#### *Culturally Specific Syndromes*

The first possible contributing factor for the reported discrepancy in prevalence rates of depression with Latino populations is the lack of assessment for culturally bound symptoms of depression. Culturally bound syndromes are presented in a glossary in the back of the DSM-IV-TR, and Hays (2001) cautions about the limitations of how culture is incorporated into the DSM-IV-TR. There are no guidelines in the DSM-IV-TR concerning culturally bound syndromes, which are presented as separate from the other diagnoses. This reinforces the idea that non-majority cultures shape these disorders. However, disorders seen by non-minority individuals are not seen as being shaped by the majority culture.

. Cardemil, Adams, Calista, Connell, Encarnacion, Esparza, and colleagues (2007) sampled a group of 166 Latino individuals by inquiring about their needs to understand what barriers exist for this population when seeking mental health services. The authors noted that 74% of their sample endorsed experiencing significant depressive symptoms and 57% endorsing some symptoms of anxiety. The authors found that a significant number of these participants endorsed culturally bound syndromes found in many Latino

cultures. The first was *decaimiento*, which is a term commonly used to describe loss of energy, lack of interest, and body weakness. The second was *nervios*, which is a very common word used to describe distress by Latino individuals in the United States and Latin America. The authors described it as a feeling of vulnerability to stressful life events that are brought on by difficult life circumstances. The symptoms associated are headaches, inability to perform activities of daily living, irritability, stomach problems, nervousness, inability to concentrate, dizziness, tingling sensations, and crying spells. The final syndrome the authors described was *agitamiento*, which is a term that describes intense anxiety, nervousness, inability to sit down, sleeplessness, restlessness, and sweaty palms. Interestingly, Cardemil and colleagues noticed a low rate of overlap between some DSM-IV-TR diagnoses and the reported cultural bound syndromes. These findings have given credence to the idea that culturally bound syndromes may be different diagnoses or a cluster of unique symptoms. The authors highlighted that the DSM-IV-TR diagnosis of depression and *decaimiento* share similar symptoms. The authors found a noticeable overlap between the two, which may have been due to comorbidity. Cardemil and colleagues have illustrated that with Latino individuals it may be more accurate to assess for these culturally bound syndromes, as well as the DSM-IV-TR definition of depression or other diagnoses.

### *Cultural Perceptions*

The second possible contributing factor for the variation in reported rates of depression with Latino individuals is the perceptions and attitudes about depression and treatment for depression held by many Latino individuals. Cabassa and Zayas (2007) addressed Latino immigrants' decisions to seek depression care by examining three

cognitive processes; illness perceptions, attitudes toward depression treatment, and subjective norms related to professional mental health care. The authors used an illness perception model that organized illness perceptions into five interrelated components: (a) how people label and describe the illness and symptoms attributed to the illness, (b) ideas about the cause of the illness, (c) expectations of how long the illness will last, (d) effects and outcomes expected of the illness, and (e) beliefs about whether the illness can be controlled. The authors were interested in how Latino individuals' beliefs about illnesses might affect their decision to seek treatment for depression.

Attitudes towards depression care encapsulate individuals' understanding, knowledge, and evaluation of depression care and their preferences for treatments (Cabassa & Zayas, 2007). Prior studies have found that attitudes toward depression treatments significantly influenced patients' treatment adherence and that compared to non-Latino Caucasian individuals, Latino individuals were more likely to view antidepressants as addictive, less likely to find these medications as an acceptable treatment option, and to prefer counseling over medications to treat depression.

Cabassa, Lester, and Zayas (2007) examined Latino immigrants' perception toward depression and depression treatment. The authors' findings highlighted the importance of cultural perceptions of depression in a sample of Latino immigrants and their view of depression treatments available. The participants viewed depression to be caused by reactions to life circumstances and social pressures. The authors explained that the Latino participants viewed depression as not being a biological disorder or defect. Consistent with the literature the authors found that the participants held positive beliefs about depression treatment; however, the participants were more reluctant to endorse

antidepressant usage and preferred counseling or psychotherapy. The authors noted that the Latino participants were worried about becoming addicted to antidepressants. Latino individuals' beliefs concerning depression are of particular importance when many mental health professionals may view depression as a biological disorder and the appropriate treatment being antidepressants (Cabassa & Zayas, 2007). The reported cultural perception of attitudes and preferences may be contributing to the variation in reported prevalence rates of depression and be part of the reason why many Latino individuals do not receive adequate treatment, do not take their prescribed medication, or drop out of their treatment prematurely.

#### *Barriers and Risk Factors*

The final contributing factor to the variance in reported prevalence rates of depression among Latino individuals is potential risk factors and barriers to treatment that may influence the rates of depression for Latino individuals. Lack of services available in Spanish, the tendency to seek assistance from family or religious institutions, legal status, poverty, and stigma are potential barriers to psychological treatment for many Latino individuals (Schmaling & Hernandez, 2007; Cabassa & Zayas, 2007; Cabassa et al., 2007).

Interestingly, U.S.-born Latino individuals have been shown to have a greater risk for having a psychiatric disorder when compared to foreign-born Latinos (Schmaling & Hernandez, 2005). Schmaling and Hernandez conducted a study to examine the prevalence rates of depression for Latino individuals diagnosed in primary care settings. The authors found that many Latino individuals who are seeking care are left untreated. The authors hypothesized that many Latino individuals go untreated because they are

seeking care in primary care facilities, which may have inadequate visitation time, inadequate assessment tools for depression, and too many patients.

Researchers have found that seeking treatment for depression for Latino individuals was influenced by the approval of family and/or friends with the decision to seek treatment (Cabassa & Zayas, 2007). Many Latino populations have utilized a combination of both informal and formal sources of help, such as both family members and traditional medical services to cope with mental health problems. Cabassa and Zayas conducted a study to measure Latino participants' intentions to seek depression care. The authors provided a clinical vignette and asked Latino participants to report their intentions to seek care if they were in a similar situation. Cabassa and Zayas found that most participants in their sample were able to identify with the vignette and had reported symptoms of depression during the time of the interview. The participants relied on a combination of both informal sources (e.g., family members) and formal (e.g., psychologist, social worker) to cope with mental health problems, with participants relying on informal means before reaching-out for formal assistance. The results indicated that pressure to adhere to the family desires acts as a barrier to seeking treatment for some Latino individuals.

Menselson, Rehkopf, and Kubzansky (2008) conducted a study to evaluate whether ethnicity itself was a risk factor for depression. In order to do this the authors conducted a meta-analysis and used the following criteria to guide their analyses: a) adult sample between 18 and 65, b) measure of major depression utilized, c) at least 30 participants in the study per ethnic group, and d) studies published in peer reviewed journals. The authors' analysis of eight studies of lifetime prevalence of Major

Depressive Disorder concluded that there was not a significant difference between Latino individuals' and non-Latino Caucasian individuals' lifetime prevalence of depression. On the other hand, after the authors completed an analysis of 23 studies that examined depressive symptom prevalence, the authors concluded there were higher symptom levels for Latino individuals than non-Latino Caucasian individuals. The authors indicated that although Latino individuals and non-Latino Caucasian individuals were shown to share similar rates for lifetime prevalence of depression, Latino individuals had higher symptom levels and therefore something must have accounted for the similar prevalence rates. Overall, Menelson and colleagues concluded that ethnicity may not be a risk factor for depression, but that the higher accounted levels of symptoms in Latino individuals may be indicative of potential issues with the current means of assessment for depression for Latino individual. Although it is difficult to understand exactly what may account for the discrepancy in the prevalence rates and assessment of depression with Latino individuals compared to non-Latino Caucasian individuals, three considerations should be acknowledged. First, there may be some cultural bound symptoms of depression that are also present or better accounting for the discrepancy. Second, there may be a difference in the attitude or perception of treatment of depression for Latino individuals. Finally, barriers to treatment and risk factors may be accounting for some of the variation.

## CONCLUSIONS AND FUTURE DIRECTIONS

The first section of this literature review addressed the content of the English and Spanish versions of the BDI, the BDI-II, and the CES-D and their ability to assess depression in the Latino population. The next section discussed how reliance on Westernized diagnostic criteria, cultural influences, protective factors, and potential misinterpretation of Spanish translated assessment measures are reasons why culture should be more incorporated when conducting assessments of depression with Latino individuals. Next, the literature review shared research on prevalence rates of depression and three potential contributing factors to a recognized variation in prevalence rates of Latino individuals. The three factors discussed were a lack of assessment for culturally specific syndromes, Latino individuals' perceptions and attitudes about depression, and barriers to treatment and potential risk factors for depression with Latino individuals. Now the literature review will summarize the previous sections and explore future directions for conducting research and to improve assessment of depression with Latino individuals.

### Current Assessments

The BDI is one of the more common measures used to assess depression (Ward, 2006). Although, many studies examining the BDI have found high reliability and validity, the factor structure seems to change when using a translated version of this instrument with diverse populations (Azocar et al., 2001). There are different factors that are present with the Latino population and after a discriminate item analysis some items appear to be biased after translation.

The BDI-II, like the BDI, has been shown to be both reliable and valid (Gary & Yarandi, 2004; Wiebe & Penley, 2005). However, researchers using the BDI-II have

found many different factor structures within the English version alone (Ward, 2006; Vanheule et al., 2008). The variability in factor structure found in the English version may lead to more variation in factor structure with the Spanish version and more research needs to be done to address this possibility.

The CES-D is an instrument commonly utilized when assessing for depression with Latino individuals. This scale was developed by Radloff (1977) in order to measure for depression with the general population. The general population Radloff studied only included samples of Caucasian participants and African American participants. Radloff demonstrated adequate reliability and validity with this measure in his research, but warned against using this instrument with bilingual individuals. Factor analysis of the CES-D with different Latino populations had some discouraging results (Guarnaccia, Angel, & Worobey, 1989). Guarnaccia, Angel, and Worobey found different factor structures between Puerto Rican, Mexican American, and Cuban adults and the importance of not measuring Latino individuals as a homogenous group. Garcia and Marks (1988) also compared response on the CES-D between Mexican American adults and Caucasian adults and found that hopelessness about the future, lack of enjoyment from life, and depreciation of self in relation to others were more prevalent with Mexican Americans adults. Although the Spanish version of the CES-D is frequently used with Latino populations, it may not be measuring the same thing as the English version, and potentially a different construct altogether.

Overall, the CES-D may not be the appropriate measure to be utilized with the Latino population because of potential inconsistencies of factor structures found across ethnicities (Guarnaccia et al., 1989). The BDI and BDI-II might also not be preferable to



use with Latino individuals due to reported item bias in the Spanish version and variability in factor structure. Considering the utility and availability of these instruments, and the lack of alternatives, there is urgency in developing a new measure.

### Culture and Depression

The impact of culture on the assessment of depression needs to be examined thoroughly to better serve Latino populations. Although the DSM-IV-TR contains a section with culturally bound syndromes, the manual operates from a Westernized viewpoint and may be neglecting non-Western beliefs, such as increased tolerance for negative emotion, symptoms attributed to interpersonal concerns versus personal problems, and not differentiating between mind and body (Tsai & Chentsova-Dutton, 2002).

Some Latino cultural values may act as protective factors against depression. One of these protective factors is *familismo*, which may promote social support, even when increased environmental risk is present (Menselson, Rehkopf, & Kubzansky, 2008). Interpersonal functioning has been shown to act as another protective factor against depression. Palloni and Morenoff (2001) explained how Latino individuals appear to be more resilient, despite environmental challenges, to some negative health outcomes, such as low birth rate and infant mortality when compared to non-Latino Caucasians. This protective factor has been termed as the *Hispanic paradox* (Page, 2007; Palloni & Morenoff, 2001). Because of the rapid growth of the Latino population (US Bureau of the Census, 2003) and the above factors the field must be more aware of how culture is affecting assessment with Latinos.

### Contributing Factors

It should seem obvious that many Latino individuals may be at a higher risk for psychiatric illness due to socioeconomic factors and therefore would have a higher prevalence of depression or psychiatric illness. However, when examining the prevalence rates for depression among this population, there are inconsistencies (Sclar, Robinson, & Skaer, 2008; Menelson et al., 2008; Roberts, 1981). Plant and Sachs-Ericson (2004) believe there are protective factors that account for a similar prevalence rate to Caucasian individuals while Roberts (1981) believes that Latino individuals have higher rates of depression. Lack of assessment for cultural bound syndromes, different cultural attitudes and perceptions of depression, barriers to treatment, and potential risk factors for depression may help explain these inconsistencies in reported prevalence rates of depression with Latino individuals.

Cardemil and colleagues (2007) highlighted an overlap between some DSM-IV-TR diagnoses and cultural bound syndromes specific to Latino cultures. The authors' results helped illustrate the possibility that it may be more accurate to assess for these cultural bound syndromes, as well as depression or other diagnoses with Latino individuals. Latino individuals' beliefs concerning depression are of particular importance and may be contributing to the variation in reported prevalence rates of depression. Cultural perceptions, attitudes, and preferences may contribute reasons why many Latino individuals do not receive adequate treatment, do not take their prescribed medication, or drop out of their treatment prematurely. Schmaling and Hernandez (2005) conducted a study to examine the prevalence rates of depression for Latino individuals diagnosed in primary care settings. Latino individuals go untreated because they are

seeking care in primary care facilities, which may have inadequate visitation time, inadequate assessment tools for depression, and too many patients altogether.

#### Future Directions

There are several suggestions and future directions of research for improving how depression is assessed with Latino individuals. First, the variability in factor structures found for Spanish translated versions of both the CES-D and the BDI should be further examined with an emphasis on identifying a factor structure that is representative of Latino culture. Second, the current assessment measures do not incorporate culture and future research should examine how Latino cultural factors may be affecting reported rates of depression. Future research should be conducted on whether Latino individuals' own definition of depression is aligned with the factor structures of current assessment measures for depression. Finally, research should focus on understanding what depression means and how it is manifested for Latino individuals in comparison to the DSM-IV-TR conceptualization of depression. The current state of assessment for depression with Latino individuals and the increasing number of Latino individuals seeking mental health services behooves us to address these concerns.

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